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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/492,214	01/27/00	STEMMLER I	739-009159-U

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HM12/0622

EXAMINER	
GABEL, G	
ART UNIT	**PAPER NUMBER**
1641	8

DATE MAILED: 06/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/492,214	STEMMLER ET AL.	
	Examiner	Art Unit	
	Gailene R. Gabel	1641	

-- The MAILING DATE of this communication appears on the cover sh et with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *24-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claims *1-32* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2000* is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group 1, claims 1-23 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 24-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being claims drawn to a non-elected invention. Accordingly, claims 1-23 are under examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The informal drawings are not of sufficient quality to permit examination and are objected to because the notations and units defining the X and Y axes of the graphs have not been translated to English. Accordingly, new drawings are required in reply to this Office action. No new matter should be entered.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the

provisions of 37 CFR 1.136(a). Failure to timely submit new drawings will result in **ABANDONMENT** of the application.

The drawings in this application are also objected to by the Draftsperson (see PTO-948 attached). Correction is required.

Specification

4. Contents of Specification should be titled accordingly:

(a) **Background of the Invention**: The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "**Technical Field**."

(2) Description of the Related Art: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "**Background Art**."

(b) **Brief Summary of the Invention**: A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems

previously existent in the prior art (and preferably indicated in the Background of the Invention). Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(c) **Brief Description of the Several Views of the Drawing(s)**: A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(d) **Detailed Description of the Invention**: A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. This item may also be titled "Best Mode for Carrying Out the Invention." Where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with idiomatic errors. Specifically, the claims do not use consistent terminology to describe or define or refer to what appears to be the same element or function. Further, the limitations in the claims are not recited so as to have consistency and smooth flow of ideas so as to distinctly define the invention that Applicant intends to claim and obtain patent protection for.

For example, language such as "in which the laser stimulates the fluorescent label by irradiation ... , wherein the fluorescent label is conjugated to a reactant ..., wherein the fluorescently labeled reactant is specific for or reacts with the analyte ..., etc" is suggested but not required in clarifying the claims.

Claim 1 has improper antecedent basis problem in reciting "Method for quantitative or qualitative determination". Change to "A method for quantitative or qualitative determination" for proper antecedent basis.

Claim 1 is indefinite and incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The claim lacks specific elements such as reactants to which the analyte interacts or reacts with in the system or labels so as to effect measurement of a signal.

Claim 1 is indefinite and incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The claim lacks specific method steps including those that effect actual reaction between elements. For example, steps such as "contacting analyte with a reactant", etc.

Claim 1 is vague and incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Specifically, it is unclear what structural cooperative relationship exists between the measurement signal and the analyte as well as the lacking elements so as to effect a quantitative determination, a qualitative determination, or an interactive kinetic measurement.

Claim 1 is vague and indefinite in reciting "the different phases are present in parallel" because it does not specifically and distinctly define what is encompassed by the term "parallel". For example, are the phases parallel in volume, color, solute concentration, etc.

Claim 1 is ambiguous in reciting "each measurement signal is attributed to" because it is unclear what is encompassed by the term "attributed". For example, does Applicant intend a direct relationship or inverse proportion, etc.

Claims 2-23 have improper antecedent basis problems in reciting "Method according to claim ...". Change to "The method according to claim ..." for proper antecedent basis.

Claim 2 is vague and indefinite in reciting "the method is conducted as an affinity assay" because it is how the method is effected in the absence of affinity elements in claim 1 from which it depends.

Claim 4 is vague and indefinite in reciting "the method is conducted as an immuno-affinity assay" because it is how the method is effected in the absence of immuno-affinity elements in claim 1 from which it depends.

Claim 5 lacks clear antecedent support in reciting "the volume" and "the detection". Further, the claim fails to specifically define what is encompassed by reciting "the volume in which the detection occurs" in the claim, i.e. the volume of the system, the volume of each phase, sample volume, etc.

Claim 6 is vague and indefinite in reciting "the method is conducted as a competitive assay" because it is unclear how the method is effected in the absence of antibodies or ligand partners in claim 1 from which it depends.

Claim 7 is vague and indefinite in reciting "the method is conducted as a sandwich assay" because it is unclear how the method is effected in the absence of antibodies or ligand partners in claim 1 from which it depends.

Claim 8 lacks antecedent support in reciting "the reactant". Claim 8 is further indefinite in reciting "the reactant carries a label" because it is unclear what Applicant intends to encompass in reciting "carries", i.e. conjugated.

Claim 10 is confusing in reciting "as label, a fluorescent label is provided" because it fails to specifically and distinctly recite or define that the label is fluorescent. Language such as "in which the label is a fluorescent label" is suggested but not required in clarifying the claim.

Claim 11 is vague and indefinite in reciting "a first phase is provided ... and a second phase is provided ..." because it is unclear what structural cooperative relationship exists between the "first phase" and the "second phase" in claim 11 and the "two different phases" in claim 1 from which it depends.

Claim 12 is ambiguous in reciting "the solid phase is formed by walling of a well in a sample carrier" because it is unclear what is encompassed by the term "walling" as recited in the claim.

Claim 14 has improper antecedent basis problem in reciting "a well". Further, the term "is provided" appears to deter clarity from the claim. Language such as "in which the well has a quadratic ... shape" is suggested but not required.

Claim 15 has improper antecedent basis problem in reciting "a well". Further, the term "is provided" appears to deter clarity from the claim. Language such as "in which the well has an aperture surface that is smaller ..." is suggested but not required.

Claim 16 has improper antecedent basis problem in reciting "a well". Further, the term "is provided" appears to deter clarity from the claim. Language such as "in which the well has a truncated ... shape" is suggested but not required.

Claim 17 is vague and indefinite in reciting "linked to a phase" because it is unclear what structural cooperative relationship exists between the recitation of "a phase" in claim 17 and the "two different phases" in claim 1 from which it depends.

Claim 18 has improper antecedent basis problem in reciting "a well".

Regarding claim 18, "and/or" renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by "and/or"), thereby rendering the scope of the claims unascertainable. See MPEP § 2173.05(d).

Claim 20 lacks clear antecedent support in reciting "the sample quantity".

Claim 20 lacks antecedent support in reciting "the labeled analyte".

Claim 20 lacks antecedent support in reciting "the labeled reactant".

Claim 20 lacks clear antecedent support in reciting "the label".

Claim 20 lacks antecedent support and is rendered vague and indefinite in reciting "the reacting radiation of the labeling" because it is unclear what Applicant intends to encompass in such a recitation.

Claim 21 lacks clear antecedent support in reciting "the stimulating light beam".

Claim 21 lacks clear antecedent support in reciting "the sample volume".

Claim 22 lacks clear antecedent support in reciting "the exciting light beam". Further, it unclear what functional cooperative relationship exists between "the exciting light beam" and "the stimulating light beam" in previous claim 21.

Claim 22 is ambiguous in reciting "the exciting light beam for ... measurement signals is **conducted via the sample**" because it is unclear what Applicant intends to encompass by this recitation.

Claim 23 is ambiguous in reciting "stimulation occurs with a laser" because the term "occurs" fails to distinctly define what method step Applicant intends to encompass.

It is, further, unclear how the terms "stimulation" and "excited" in claim 23 relate functionally with each other and with another term such as "radiated" in claim 20 from which it depends.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-4, 6-14, 17-18, 20, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Hargreaves (US 6,121,055).

Hargreaves discloses a method for detecting presence or amount of analyte in a system having two different phases. Specifically, Hargreaves discloses a two-phase system wherein a first aqueous phase comprises an assay mixture containing the analyte, reactants (binding components, i.e. antibodies), label, and a primary layer which extends generally traversely across within a second solid phase which comprises a well on a microtiter plate (see column 13, lines 23-27 and column 9, lines 6-28). In heterogeneous assays, the primary layer is selectively semi-solid or gel and separates bound from unbound label and binding reactants (see column 13, lines 38-41 and column 11, lines 43-52). A secondary layer across within the well may also contain assay reactants (see column 13, lines 47-50). The assay mixture is largely aqueous solution including components such as water, buffer, preservatives, and proteins (see column 5, lines 57-61). Hargreaves discloses that the wells may have numerous geometric configurations using different sizes and shapes, i.e. cylindrical (see column 27, lines 1-16). Hargreaves uses labeling substances including fluorophores, laser type dyes and luminescers (see column 24, line 58 to column 25, line 7 and column 22, lines 37-39). Hargreaves teaches exciting fluorescent labeled complexed binding pairs from the bottom region of the primary and secondary layers and taking measurement signals

therefrom using a detector; such embodiment prevents excitation of unbound or free labels in the system (see column 29, lines 26-29). A quenching substance such as a resonance energy transfer receptor like rhodamine where fluorescein is the label can also be incorporated into the binding assay system (see column 29, lines 30-43). Hargreaves finds application in specific binding assays such as competitive and sandwich heterogeneous assays as well as affinity or immunoaffinity assays for specific binding pairs including antigens and antibodies as well as nucleic acid complementary sequences (see columns 25-26 and column 8, lines 51-58).

7. Claims 1, 8-13, 17-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Te Koppele et al. (US 6,121,055).

Te Koppele et al. disclose a method for assaying an analyte (proteolytic enzyme) or interaction (metalloproteinase activity) in a system with two different phases. Specifically, Te Koppele et al. disclose admixing a substantially liquid phase sample containing the analyte with a fluorescence quenched peptide having the formula Que-Flu-Spa-Car or Flu-Sub-Que-Spa-Car wherein Sub is a peptide chain with a cleavage site for the enzyme, Flu is a fluorophore, Que is a quencher capable of absorbing the fluorescent radiation emitted by the fluorophore, and Car is a solid phase (water insoluble or macromolecular carrier); the liquid phase is optionally separated from the solid phase material; then irradiating the solid phase to measure a fluorescent signal (see columns 3, 7, and 8). The fluorescence quenched substrate on the wells of the

solid phase, i.e. microtiter plates, remain immobilized upon cleavage (see column 1, lines 47-50).

8. Claims 1-2, 4, 6, 8-13, 17-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Saunders et al. (US 5,674,699).

Saunders et al. disclose a method for qualitatively or quantitatively measuring analyte in a sample comprising contacting a sample solution containing the analyte with reactants (particles and affinity reagent) to form a mixture then fractionating the mixture to form two different phases including a solid phase (particle rich fraction) and a liquid phase (particle free fraction) in fluid contact within a sample carrier in the form of a microtiter plate (see column 7, lines 25-29). The analyte becomes partitioned as a result of binding with the affinity reagent to concentrate in the solid phase fraction. Saunders et al. further disclose optically reading measurement signals from each of the phases while present in parallel within the carrier (see claim 1). The reactants include antibodies, antigens, enzymes and substrates (see claim 2). The method can be applied in affinity assay, immunoaffinity assay, and competitive assays (see claim 1-4 and 10 and columns 11 and 12). Fluorescence label of the analyte can be excited by light at one wavelength then emit light at a longer wavelength or may quench the fluorescence of a second molecule (see column 13, lines 17-29 and 62-65).

9. Claims 1-2, 4, 8-9, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Komives et al. (US 5,510,247).

Komives et al. disclose a multiphase reaction system capable of measuring interaction or reaction of analyte in a single stage process wherein different phases in the multiphase system differ in density (see column 4, lines 33-39). The system has two liquid phases: a first phase comprises a catalyst system containing a reactants or affinity means (antibodies) which react with analyte (antigen) for effecting a desired reaction and produce a product (see column 15, line 63 to column 16, line 14). Thereafter, the product of the reaction partitions into the second phase for detection (see column 4, lines 48-58 and column 5, lines 34-50). Measurement signals are detected using dynamic light scattering devices (see column 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 5, 15-16, 19, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hargreaves (US 6,121,055) in view of Dixon et al. (US 5,381,224).

Hargreaves has been discussed supra.

Hargreaves differs in failing to teach that 1) at least one measurement signal is obtained by spatially staggered measurement and that 2) a plurality of measurements is obtained after excitation by a light beam.

Dixon et al. disclose a scanning laser beam imaging or mapping system for macroscopic biological specimens which is capable of confocal and non-confocal imaging to be performed in fluorescence, photoluminescence, reflected light and other contrast mechanisms such as transmitted and scattered light (see Abstract and column 1, lines 5-19). The laser system is capable of making signal measurements simultaneously or sequentially on the same specimen using a combination of the aforementioned contrast mechanisms (see column 3, lines 50-61). Specifically, the system is used for tier fluorescence imaging and measurement, as well as for mapping of layers where luminescence or fluorescence spectrum is measured at each pixel position, as in spatially resolved and spectrally resolved measurements (see column 5, lines 10-64). Dixon et al. find application of the system in gene sequencing or DNA mapping of fluorescent gels and other biological specimens that fluoresce upon excitation by laser radiation (see column 3, lines 29-33). Light from the specimen after

stimulation / excitation by the laser is collected by the laser can lens into the system wherein the light is passed through a pinhole for detection (see column 6, lines 19-27).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the imaging and detection system taught by Dixon in the heterogeneous assay methods of Hargreaves because the detection systems taught in Hargreaves are generic with respect to the light source and detector used in exciting and measuring signals from fluorescent and laser dye labels and Dixon specifically taught application of the scanning laser beam imaging or mapping system in macroscopic biological specimens (assay mixtures) that fluoresce upon excitation by laser radiation including DNA sequencing in fluorescent gels (solid).

Dixon et al. have been discussed supra. Hargreaves and Dixon et al. differ in failing to disclose 1) the volume at which detection occurs in claim 5, 2) providing the well in the microtiter plates as having a truncated pyramid or cone shape in claim 16, 3) providing the well having an aperture surface smaller than the floor surface in claim 15, and 4) the diameter of the stimulating light beam directed to the sample volume as recited in claim 21.

However, these parameters and shape requirements incorporated into heterogeneous assays for detecting analyte in multiphase systems constitute obvious modifications of parameters which are routinely varied in the art (e.g. volume, size, shape, etc.) and which have not been described as being critical to the practice of the invention.

Further, it is maintained that the sample volume in the system at the time of detection, i.e. 1 μl or 50-100 nl and the stimulating light beam diameter in the sample volume, i.e. <40 μm or about 20 μm, are all result effective variables which the prior art references have shown may be altered in order to achieve optimum results. It has long been settled to be no more than routine experimentation for one of ordinary skill in the art to discover an optimum value of a result effective variable. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum of workable ranges by routine experimentation." Application of Aller, 220 F.2d 454, 456, 105 USPQ 233, 235-236 (C.C.P.A. 1955). "No invention is involved in discovering optimum ranges of a process by routine experimentation." Id. at 458, 105 USPQ at 236-237. The "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." Application of Boesch, 617 F.2d 272, 276, 205 USPQ 215, 218-219 (C.C.P.A. 1980). Since Applicant has not disclosed that the specific limitations recited in instant claims 5 and 21 are for any particular purpose or solve any stated problem and the prior art teaches that quantitative determinations in binding assays often vary according to the sample being analyzed and various parameters and variables appear to work equally as well, absent unexpected results, it would have been obvious for one of ordinary skill to discover the optimum workable ranges of the methods disclosed by the prior art by normal optimization procedures known in the binding assays using multiphase systems.

11. No claims are allowed.

Remarks

12. Prior art made of record are not relied upon but considered pertinent to the applicants' disclosure:

LaMotte, III (US 5,296,347) discloses bridge immunoassay which employs a primary free solution analyte/receptor binding reaction in either a sandwich or competitive assay format, and a universal solid phase capture system. The immunocomplexes are formed in free solution prior to immobilization into the solid phase capture system.

Piehler et al. (J. Immunol. Methods, 1997) teach determination of affinity constants based on equilibrium binding between an analyte and an antibody in liquid phase by heterogeneous phase detection scheme (see Abstract).

Lutz et al. (Journal of Chromatography, 1997) teach a continuous flow biochemical detection system which allows use of solid phase immobilized affinity proteins: a heterogeneous set up of quantifying either free or bound label fraction is used.

Arnold et al. (US 5,283,339) disclose using aqueous multiple-phase system containing a polymer for selective partitioning of proteins which exhibit affinity to metals from mixtures (see Summary and column 3). The polymer employed, polyethylene glycol (PEG), is derivatized so that it chelates the metals. One of the phases contain chelated metals so that selected proteins are drawn into the phase by interaction.

Schoener et al. (US 5,514,592) disclose a method for testing blood for the presence of analyte (hemoglobin S) wherein a blood sample is vigorously admixed with a two-phase test system so as to determine the presence of analyte subsequent to the separation of the phases (see Abstract). The two-phase systems involves an aqueous phase containing a lysing agent, a chemical reducing system, a phosphate ion buffer system and an immiscible phase of mineral oil. After centrifugation, the insoluble hemoglobin forms a red band at the interface between the lower aqueous phase and the upper mineral oil phase (see column 2, lines 27-41).

Chait et al. (US 6,136,960) disclose determining ratio of concentration of molecules in a multiphase system.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gailene R. Gabel whose telephone number is (703) 305-0807. The examiner can normally be reached on Monday-Thursday from 6:30 AM - 4:00 PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (703) 308-3399. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Gailene R. Gabel
June 19, 2001

LONG V. LE
SUPERVISORY PATENT EXAMINER
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06/19/01